

Figure 1

PROVIDE SCAFFOLD PROTEIN BACKBONE STRUCTURE

ESTABLISH POSITION IN BACKBONE FOR HIGH ENERGY STATE ROTAMERS

ANALYZE INTERACTION OF HIGH ENERGY STATE ROTAMERS WITH PROTEIN
SCAFFOLD TO GENERATE PRIMARY LIBRARY OF VARIANT SEQUENCES WITH
PUTATIVE ENZYME-LIKE ACTIVITY

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Figure
2

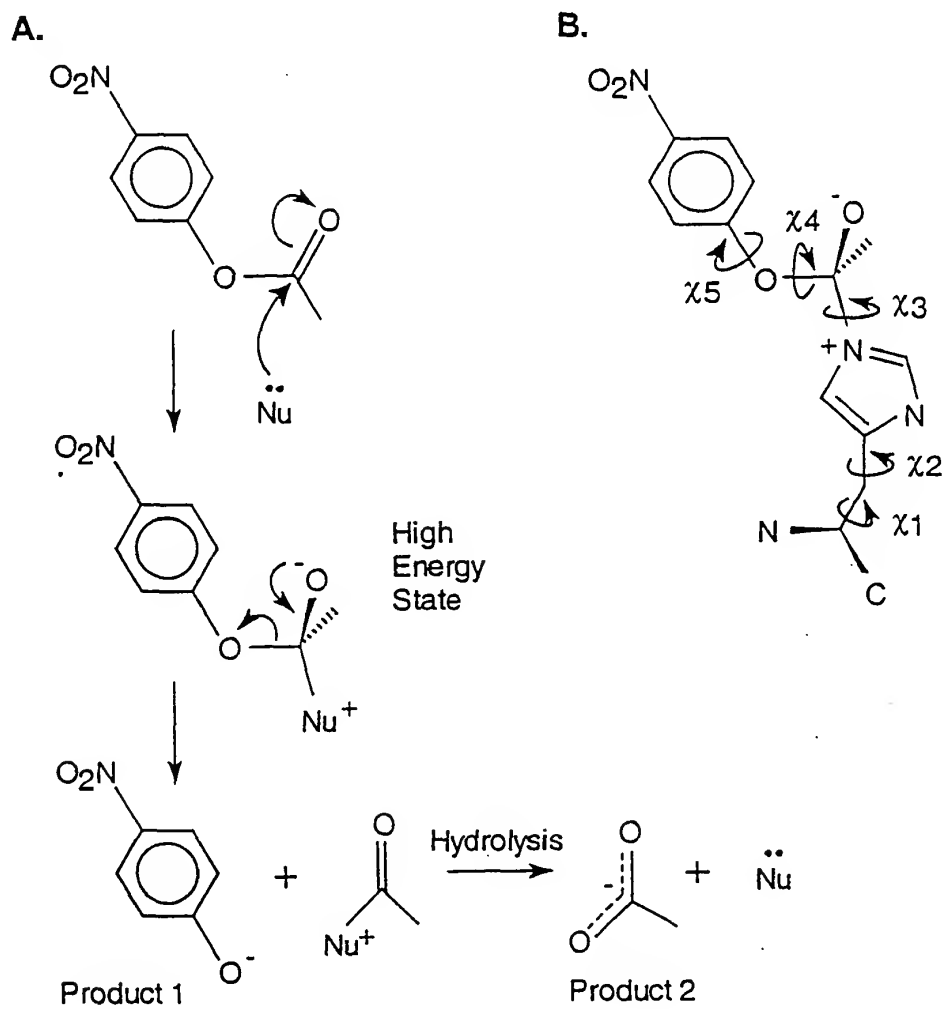
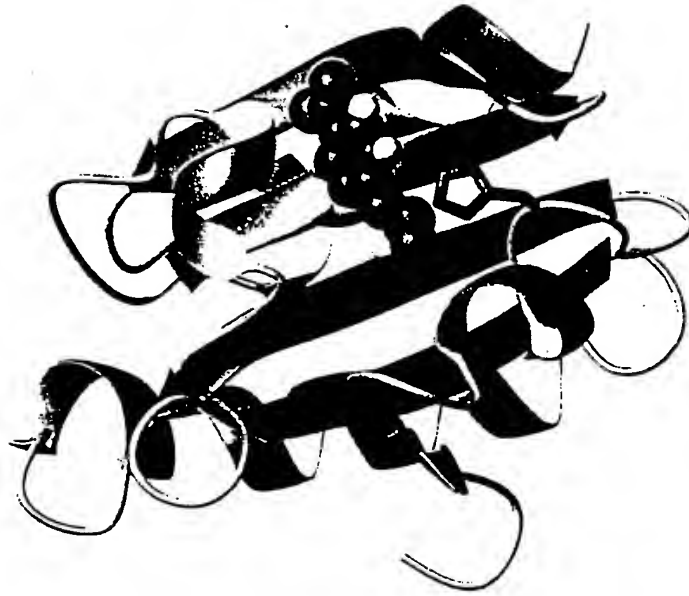
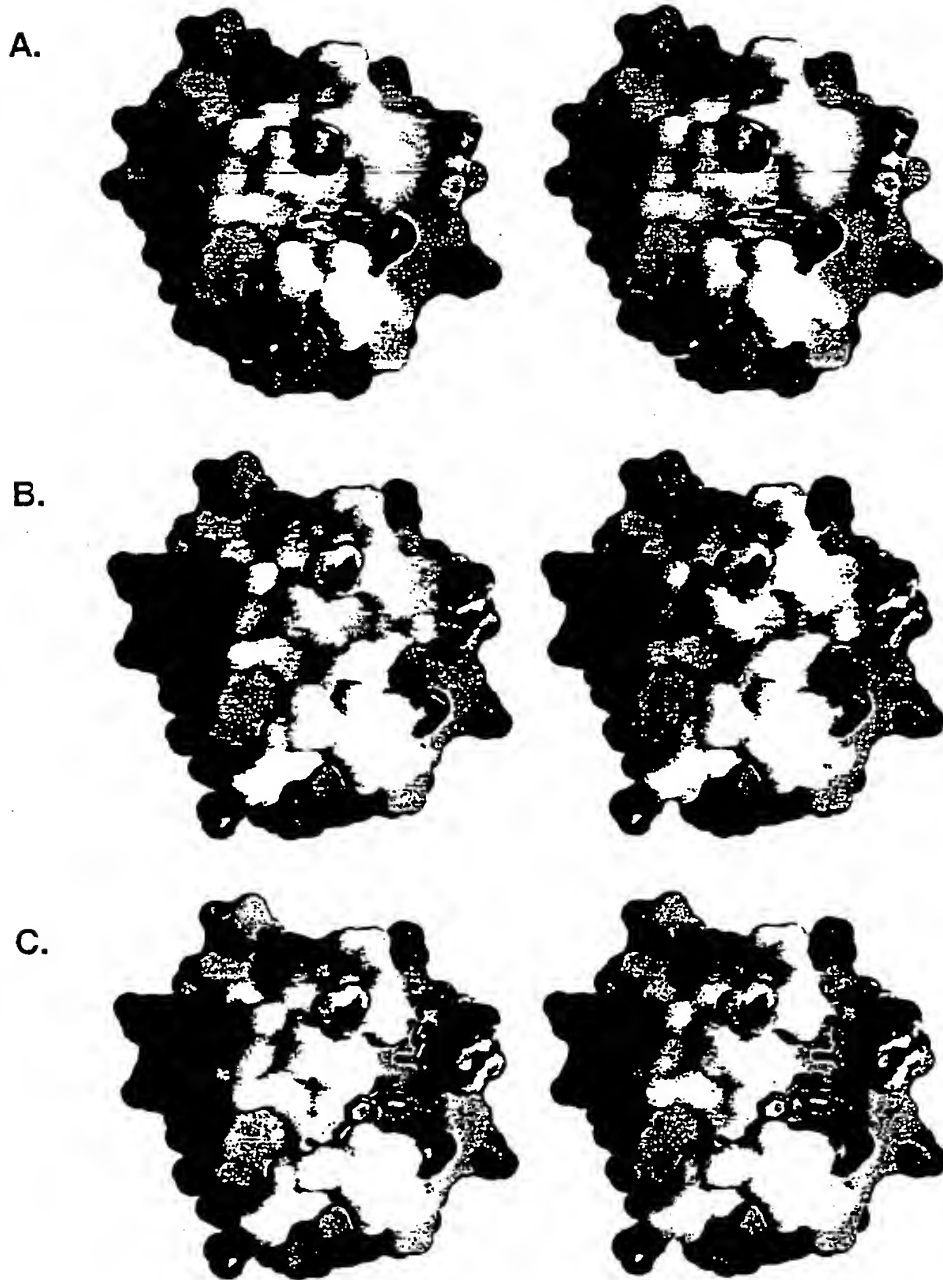


Figure
3



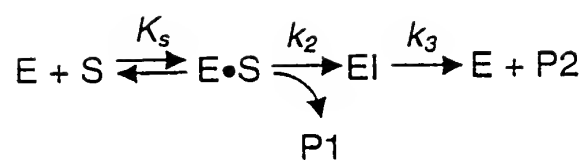
10074679.004400

Figure
4



10074579.024402

Figure
5



$$v = \frac{k_{cat}[\text{E}][\text{S}]}{K_m + [\text{S}]}$$

$$k_{cat} = \frac{k_2 k_3}{k_2 + k_3}$$

$$K_m = \frac{K_s k_3}{k_2 + k_3}$$

Figure
6

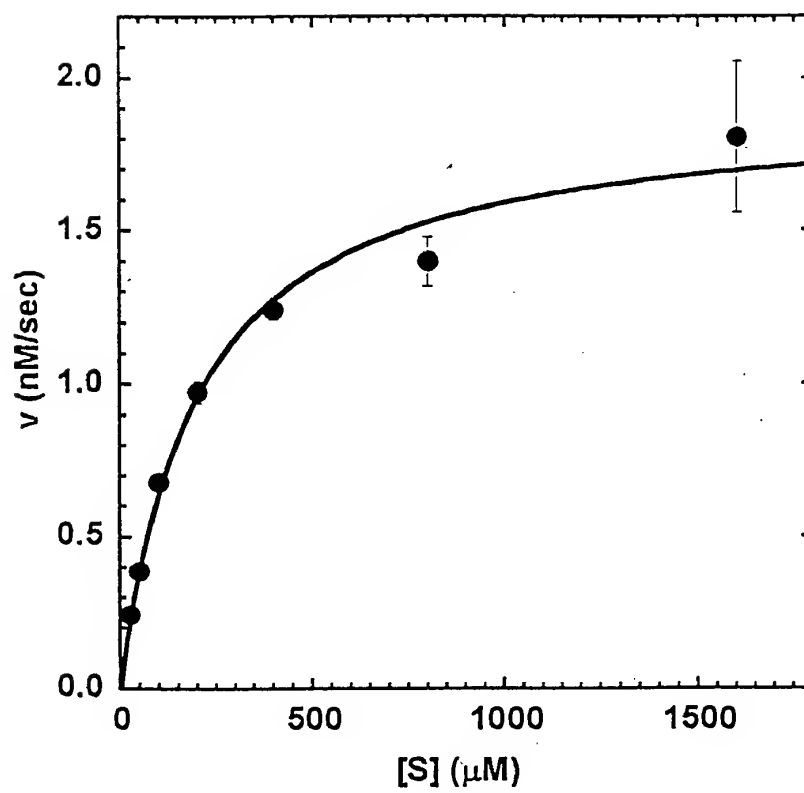


Figure
7

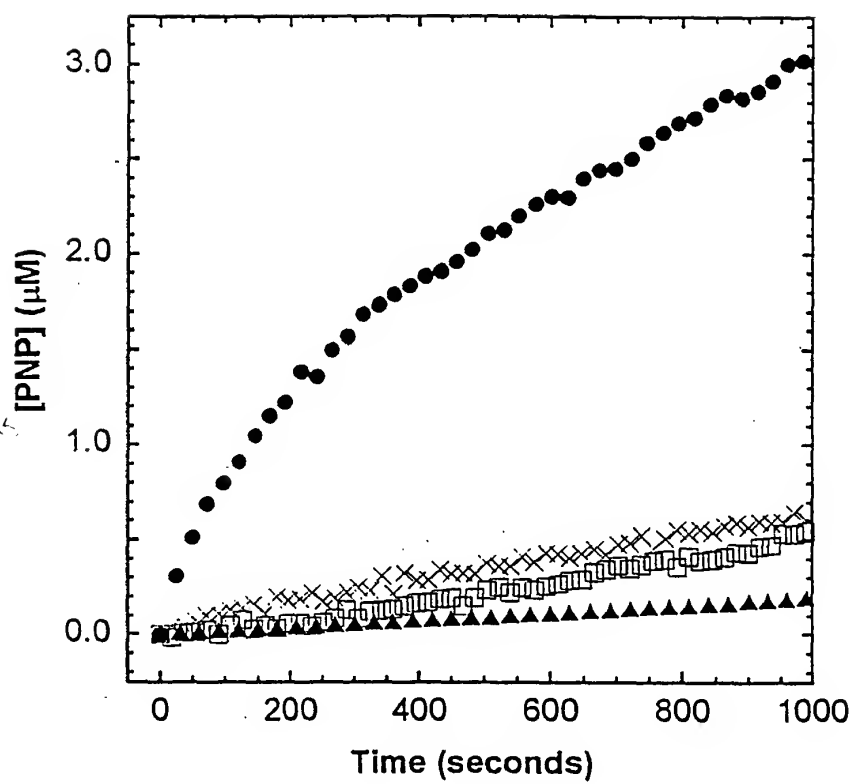


Figure
8

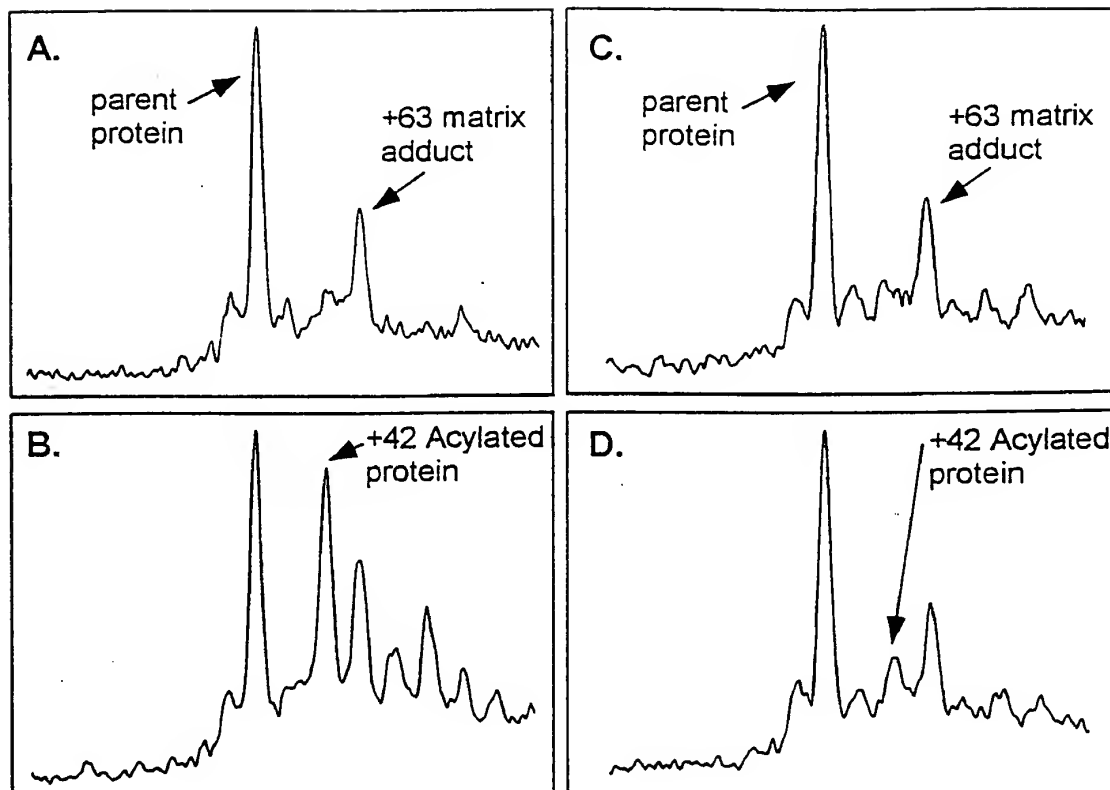


Figure
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